

Response under 37 C.F.R. §1.114  
Serial No. 10/560,034  
Attorney Docket No. 053429

**AMENDMENTS TO THE CLAIMS**

**This listing of claims replaces all prior versions of claims in the application.**

1. (Currently amended): A diamond wheel for forming a scribe line on a surface of a brittle material while rolling thereon, wherein the diamond wheel is provided with a blade having a V-section in an entire circumferential direction of a peripheral edge portion of the diamond wheel, diamond grains having 1000 to 8000 mesh are held to the blade by adhering the diamond grains to the blade by means of a bonding agent and then pressurizing or sintering the diamond wheel to which the diamond grains are adhered by the bonding agent, and a pitch between the diamond grains at a front end edge of the V-shaped blade in the circumferential direction is 2 to 20  $\mu\text{m}$ .

2. Canceled.

3. (Previously Presented): The diamond wheel according to claim 1, wherein the V-shaped section has an opening angle of 110 to 165 degrees.

4. (Previously Presented): The diamond wheel according to any one of claims 1 and 3, wherein the diamond wheel is adapted to roll on the brittle material while oscillating in a direction crossing the surface of the brittle material.

5. (Currently amended): A scribing apparatus for forming a scribe line on a surface of a brittle material, comprising:

a diamond wheel provided with a blade having a V-section in an entire circumferential direction of a peripheral edge portion of the diamond wheel, in which diamond grains having

Response under 37 C.F.R. §1.114  
Serial No. 10/560,034  
Attorney Docket No. 053429

1000 to 8000 mesh are held to the blade by adhering the diamond grains to the blade by means of

a bonding agent and then pressurizing or sintering the diamond wheel to which the diamond

grains are adhered by the bonding agent, and a pitch between the diamond grains at a front end

edge of the V-shaped blade in the circumferential direction is 2 to 20  $\mu\text{m}$ ;

a holding member for holding the diamond wheel to be rollable;

an oscillation generation member for oscillating the holding member in a direction crossing the surface of the brittle material; and

a moving mechanism for moving the holding member along the surface of the brittle material so that the diamond wheel rolls on the surface of the brittle material.

6. (Previously presented): The diamond wheel according to claim 1, wherein the diamond wheel is capable of forming a scribe line on a surface of a brittle material selected from the group consisting of glass, quartz, semiconductor, ceramic, and liquid crystal hard glass.

7. (Previously presented): The diamond wheel according to claim 1, wherein the diamond wheel is capable of forming a scribe line on an electron device part or an LCD component having a 0.1 to 0.5 $\mu\text{m}$  polarizing plate, protective layer or metal evaporation film.

8. (Previously presented): The diamond wheel according to claim 1, wherein the diamond wheel comprises diamond powder of over 8000 mesh mixed with said diamond grains.

9. (Previously presented): The diamond wheel according to claim 1, wherein the diamond wheel comprises an abrasive grain layer which comprises said diamond grains and said bonding agent.

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Serial No. 10/560,034  
Attorney Docket No. 053429

10. (Previously presented): The diamond wheel according to claim 9, wherein the diamond wheel comprises a metallic rootstock and said abrasive grain layer is around said metallic rootstock.

11. (Previously presented): The diamond wheel according to claim 9, wherein the diamond wheel consists of said abrasive grain layer.

12. (Previously presented): The diamond wheel according to claim 1, wherein the bonding agent is selected from the group consisting of a resin and a metal bond.

13. (Previously presented): The diamond wheel according to claim 12, wherein the diamond grains and the bonding agent are pressurized or sintered.

14. (Previously presented): The diamond wheel according to claim 1, wherein the diamond grains have an average grain diameter of  $2\mu\text{m}$ .